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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SOTOMAYOR, JOHN

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 06/19/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/710,611

Applicant(s)

WASOWICZ, JANET M.

Examiner

John L Sotomayor

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

1. In response to the amendment dated March 24, 2003, claims 1-52 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1,3-4, 6-16,21,23-24 and 26-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (US 6,190,173) in view of Jenkins et al (US 5,927,988).

6. Regarding claims 1 and 21, Jenkins et al (173) discloses a device and method implemented through a computer with a graphical display that allows a user to interact with the computer (Fig 1), and presents a game that stimulates the user to improve reading and spelling skills by supplying sets of phonemes from which the user must select the desired phoneme from a set of distractor phonemes. This process increases the identification skills of the user in recognizing phonemes. Later, Jenkins et al (173) provides a method to associate processed phonemes with their associated graphemes, thus providing the correspondence between a sound and its associated symbol, and improving the spelling skills of the user as well. (Col 3, lines 34-67 and Col 4, lines 1-20). Jenkins et al (173) does not specifically disclose that the device and method transitions to training sound/symbol skills once the phonological skills are mastered. However, Jenkins et al (988) teaches a plurality of language training games for language learning impaired individuals including a Phoneme training game followed by a Language Comprehension Builder game in which the user must show mastery of the phoneme training game before progressing to the language comprehension game (Col 27, lines 10-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to produce a speech training device and method that transitions to training sound/symbol skills once the phonological skills are mastered. Combining the system disclosed by Jenkins et al (173) with the teaching of Jenkins et al (988) produces a training system in which an LLI user's processing of acoustic events common to speech are significantly

improved for the purposes of providing comprehensive language training to users that are learning impaired.

7. Regarding claims 3 and 23, Jenkins et al (173) discloses that an aural presentation of the grapheme is presented coincident with the grapheme, thus increasing the awareness of the connections between speech and printed forms of the word presented (Col 9, lines 34-41).

8. Regarding claims 4 and 24, Jenkins et al (173) discloses that the game consists of a number of modules, each of which train the user in different skills (Col 8, lines 32 – 42).

9. Regarding claims 6 and 26, Jenkins et al (173) discloses that auditory cues are presented to the user coincident with the presentation of a grapheme (Col 9, lines 34-36) and that a grapheme is presented when a phoneme is to be tested (Col 9, lines 19-21). In both situations, a cue is offered to the user to improve skill in language use and recognition.

10. Regarding claims 7, 8, 27 and 28, Jenkins et al (173) discloses that the game adaptively trains a subject to distinguish between similarly sounding phonemes (Col 8, lines 43-44) and that the difficulty level of the training set changes based upon user performance (Col 10, lines 55-61). Jenkins et al (173) does not specifically disclose that the device and method transitions to training sound/symbol skills once the phonological skills are mastered. However, Jenkins et al (988) teaches a plurality of language training games for language learning impaired individuals including a Phoneme training game followed by a Language Comprehension Builder game in which the user must show mastery of the phoneme training game before progressing to the language comprehension

game (Col 27, lines 10-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to produce a speech training device and method that adaptively trains a subject to distinguish between similarly sounding phonemes, in which the difficulty level of the training set changes based upon user performance, and that transitions to training sound/symbol skills once the phonological skills are mastered. Combining the system disclosed by Jenkins et al (173) with the teaching of Jenkins et al (988) produces a training system in which an LLI user's processing of acoustic events common to speech are significantly improved based upon the amount of training time a user is willing to perform.

11. Regarding claims 9 and 29, Jenkins et al (173) discloses a stimulus stream of phonemes that begins with one distractor phoneme and increases up to three distractor phonemes as the user progresses (Col 10, lines 59-61). Jenkins et al (173) also discloses that the game provides three levels of speech processing to enhance the subject's trained ability to discern the desired word (Col 11, lines 5-10). Jenkins et al (173) does not specifically disclose increasing and decreasing the difficulty level of the game based upon the user's progress. However, user's begin at one level in the game discloses by Jenkins et al (173) and move up as their skills progress, then move back to the beginning as the start a new phoneme group. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the ability of increasing and decreasing the difficulty level of the game based upon the user's progress, or lack thereof.

12. Regarding claims 10, 11, 30 and 31, Jenkins et al (173) discloses that the game may be stored on a server computer connected to a network and that information and updates may be downloaded from the server to the user's computer system as needed or

requested (Col 5, lines 26-48). Jenkins et al (173) does not specifically disclose that the device and method transitions to training sound/symbol skills once the phonological skills are mastered. However, Jenkins et al (988) teaches a plurality of language training games for language learning impaired individuals including a Phoneme training game followed by a Language Comprehension Builder game in which the user must show mastery of the phoneme training game before progressing to the language comprehension game (Col 27, lines 10-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to produce a speech training device and method in which a game may be stored on a server computer connected to a network, that information and updates may be downloaded from the server to the user's computer system as needed or requested, and that transitions to training sound/symbol skills once the phonological skills are mastered. Combining the system disclosed by Jenkins et al (173) with the teaching of Jenkins et al (988) produces a training system in which an LLI user's processing of acoustic events common to speech are significantly improved for the purposes of providing comprehensive language training to users that are learning impaired through the use of a game to stimulate interest in using the system.

13. Regarding claims 12 and 32, Jenkins et al (173) discloses that the games used to train users are software and may be stored on and downloaded from a server (Col 5, lines 26-38). A very common and well-known method for distributing all types of software packages is on compact disk, from which they may be loaded into any computer system with an appropriate input device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to store the software package on a compact disk for later distribution to users.

14. Regarding claims 13 and 33, Jenkins et al (173) discloses the ability for an administrator to customize the game for a particular user and load that information back to the user's computer from the server (Col 5, lines 39-42).

15. Regarding claims 14 and 34, Jenkins et al (173) discloses the ability to store test scores on the server for users of the system (Col 5, lines 36-37).

16. Regarding claims 15 and 35, Jenkins et al (173) discloses the ability to store and report game statistics for users of the system (Col 5, line 38).

17. Regarding claims 16 and 36, Jenkins et al (173) discloses that an aural representation of a phoneme is presented to the user at the same time as the phoneme, thus improving the user's skill in recognizing the correspondence between sounds and symbols (Col 9, lines 59-61).

18. Claims 2,5,22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (173) in view of Jenkins et al (988) in further view of Gasper (US 4,884,972).

19. Regarding claims 2 and 22, Jenkins et al (173) discloses that phonemes are presented to the user that show how words used in testing are formed, thus improving the morphological skills of the user during the test (Col 9, lines 18-32) and Jenkins et al (988) teaches the transition from phonological training to sound/symbol training (Col 27, lines 10-51). Jenkins et al (173) does not specifically disclose or Jenkins et al (988) teach the teaching of morphological skills. However Gasper teaches a device and method that teach a conscious awareness of and ability to manipulate words of all types, and in more than one language (Col 4, lines 31-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to produce a speech training device and

method with a morphological skills training portion to train a user's skills at decoding a word and vocabulary. Combining the system disclosed by Jenkins et al (173) with the teaching of Gasper produces a speech training system capable of showing a visual and aural connection between words and their graphical representations.

20. Regarding claims 5 and 25, Jenkins et al (173) discloses a plurality of modules that are available to the user, the selection of which will take the user to a game that teaches a different skill associated with distinct training exercises for improving language recognition including phonemes, graphemes, word formation, and auditory presentation of phonemes (Col 7, lines 46-54 and Col 8, lines 32-36). Jenkins et al (173) does not specifically disclose nor does Jenkins et al (988) teach all of the modules available as listed in claim 5. However, Gasper teaches a morphological training module is included in a speech training system (Col 4, lines 31-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide modules capable of providing the phonological and morphological training functions enumerated in the claim. Combining the system disclosed by Jenkins et al (173) with the teaching of Gasper produces a speech training system with a full array of phonological and morphological modes for training a user.

21. Claims 17-19, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (173) in view of Jenkins et al (988) in further view of Antoniak (US 5,456,607).

Regarding claims 17 and 37, Jenkins et al (173) discloses that a user must sort words out of a larger grouping in order to finish the game successfully (Col 8, lines 42-58). Jenkins et al (173) does not specifically disclose nor does Jenkins et al (988) specifically teach

that words are sorted to identify patterns in printed words. Antoniak teaches a system of repositioning blocks of words on a computer screen until all of the blocks have been sorted into the proper order based upon the words in the blocks (Col 5, lines 10-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to create a task for the user comprising sorting words to identify a specified pattern in the printed words. Combining the system disclosed by Jenkins et al (173) with the teaching of Antoniak produces a system in which a user can have a visual assurance of a properly reproduced pattern based upon the words in the blocks for the purposes of removing potential sources of confusion for the user.

22. Regarding claims 18-19 and 38-39, Jenkins et al (173) does not disclose nor does Jenkins et al (988) specifically teach that words are selected on first, middle or final portions of the words. Antoniak teaches a system of repositioning blocks of words on a computer screen until all of the blocks have been sorted into the proper order based upon the words in the blocks (Col 5, lines 10-53). In addition, Antoniak teaches that a plurality of items such as places, items, definitions, abstract ideas or concepts, may be placed upon the blocks for proper sorting. Thus, sorting words can be accomplished by selecting words by the position of the beginning, medial, ending or other special phoneme by placing any such grouping of phonemes on separate blocks of a group. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a sorting task that sorts words according to the beginning, middle or ending portion of the words. Combining the system disclosed by Jenkins et al (173) with the teaching of Antoniak produces a speech training system that is used for whole words or

portions of words to increase a user's capability with recognizing common portions of words for the purposes of providing a finer granularity to language training for the user.

23. Claims 20 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (173) in view of Jenkins et al (988) in further view of Morgan (US 5,596,698).

24. Regarding claims 20 and 40, Jenkins et al (173) discloses a game for use by subjects that provides training exercises for improving language recognition in subjects who abnormally process phonemes and acoustic events (Col 7, lines 46-51). However, Jenkins et al (173) does not specifically disclose nor does Jenkins et al (988) specifically teach that this game is capable of identifying words spelled in a reverse order from a target word. However, Morgan teaches a training computer that may be programmed for those with disabilities in language recognition that specifically identifies word reversal, dyslexia and other disorders (Col 5, lines 2-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a software module in the training game to require users to identify words in which spelling is in reverse order to a target word to provide identification and training for dyslexic and other language skill challenged users. Combining the system disclosed by Jenkins et al (173) with the teaching of Morgan produces a training module for a modular computerized speech training system with the ability to assist in the speech training of users who abnormally process phonemes and acoustic events for the purposes of providing a superior tool for the training of such individuals.

25. Claims 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (173) in view of Morgan (US 5,596,698).

26. Regarding claims 41 and 43, Jenkins et al (173) discloses a method and computer system for training a user's spelling and reading skills that visually presents, on a graphic display, a target word, followed by a set of distractor words, and requesting the user identify the target word (Col 10, lines 55-61). Jenkins et al (173) does not specifically disclose that the letters of the word to be identified are in reverse order of the target word. However, Morgan teaches a computer learning device that can be programmed to identify reversals, dyslexia and other disabilities (Col 5, lines 2-9), in addition Morgan teaches visually presenting a word to a user, erasing the portions of the word, then prompting the user in guidance mode to follow a special lesson for a reversal of a word to assist in teaching those afflicted with dyslexia (Col 5, lines 2-15 and Fig 25A). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a software module in which user would be requested to identify the word whose letters are in reverse order to the target word. Combining the system disclosed by Jenkins et al (173) with the teaching of Morgan produces a training module for a modular computerized speech training system with the ability to assist in the speech training of users who are challenged with dyslexia.

27. Regarding claims 42 and 44, Jenkins et al (173) discloses a computer training system that receives a response from a user, analyses the response for a correct choice, and provides feedback to the user about the selected word (Col 10, lines 6-22).

28. Claims 45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (173) in view of Antoniak (US 5,456,607).

29. Regarding claims 45 and 49, Jenkins et al (173) discloses that a computerized game may be used to improve a user's skills at recognizing patterns in words (Col 6, lines

32-57). Jenkins et al (173) does not specifically disclose that users of the training game are presented words sorted into categories. However, Antoniak teaches that sorting words in a language training device can form the basis of a word game or other game, including an incentive award to continue to play (Col 5, lines 10-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a method and system for the training game that sorts words into categories to improve a user's skills at recognizing patterns in words. Combining the system disclosed by Jenkins et al (173) with the teaching of Antoniak produces a word sorting game with an award incentive to reinforce the teaching imparted to the user.

30. Claims 46-48 and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins et al (173) in view of Antoniak in further view of Rothenberg (US 6,134,529) for the reasons set forth in the prior Office action (see Paper No. 4) and incorporated herein.

Response to Arguments

Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 45-52, the rejection relies upon the combination of Jenkins et al (173), Antoniak and Rothenberg as shown above, not upon the combination of Jenkins et al and Siegel as asserted in applicant's response. Arguments in regard to these claims are therefore considered moot.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

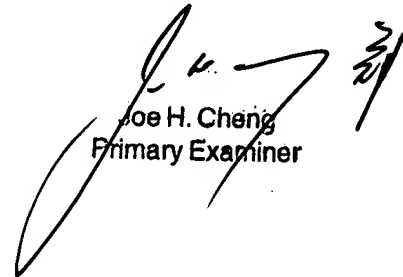
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parry et al (US 6,077,085) for a discussion of teaching specific grammar, syntax, vocabulary or other language structure or concepts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Sotomayor whose telephone number is 703-305-4558. The examiner can normally be reached on 6:30-4:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8361 for regular communications and 703-746-8361 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4558.

jls
June 16, 2003


Joe H. Cheng
Primary Examiner